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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,338	04/20/2004	Koji Hirata	520.37710CC2	2917

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EXAMINER
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MAHONEY, CHRISTOPHER E

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/827,338	<b>Applicant(s)</b> HIRATA ET AL.	
	<b>Examiner</b> Christopher E. Mahoney	<b>Art Unit</b> 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005 and 15 March 2005.  
 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☒ Claim(s) 17-21 is/are allowed.  
 6) ☒ Claim(s) 1, 3-8, 11, 12, 15 and 16 is/are rejected.  
 7) ☒ Claim(s) 9, 10, 13 and 14 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/412,578.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>Mar. 2, 2005</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/412,578, filed on October 5, 1999.

### ***Terminal Disclaimer***

The terminal disclaimer filed on March 2, 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,728,031 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7-8, 11-12 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tachibana et al. (JP3-37437) in view of Miyata (U.S. Patent No. 6,271,965) and further in view of Miyata (U.S. Patent No. 5,745,288). Tachibana teaches a screen for allowing light generated by a light source and modulated by a picture display device having pixels extending in a vertical and in a horizontal direction and laid out to form a matrix to produce an image thereon to be projected on said screen as an enlarged picture, said screen comprising: a Fresnel lens sheet 5 forming Fresnel lenses 6 at an emission side of said light; a

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first member (lenticular lens sheet 2) disposed for receiving light emitted from said Fresnel lens sheet and having light passing units (inverse castellation between 4) formed at a light emission side of said first member, and a plurality of light absorbing portions 4, wherein a pitch of the pixels projected P8 and enlarged on said screen from said image produced by said picture display device is at least twice of a pitch of said Fresnel lenses P6 formed on said Fresnel lens sheet (the pixel projected pitch, P8, is 0.5mm and the Fresnel lens pitch, P6, 0.112mm. P8 is over 4 times the pitch of P6, which means P8 is at least twice the pitch of P6.) Based on the aspect ratio, the vertical pitch is set to 0.224mm or greater. Tachibana teaches the salient features of the claimed invention except for a second member places on the emission side of the first member and adhered thereto. Miyata '965 teaches in figures 5 and 8 that it was known to provide a second member 32/62 containing light scattering material on the first member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Miyata '965 for the purpose of further reducing Moiré interference. While it is notoriously well known in the art to adhere consecutive, "sandwiched" layers in a projection screen to each other, Tachibana in view of Miyata '965 does not explicitly state that the sheets are adhered nor does it teach an antireflection coating. Miyata-'288 teaches an adhesive 10 and that the protective hard coating 8 may be provided with an antireflective coating (col. 5, line 36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Miyata-'288 for the purpose of connecting adjacent sheets and reducing unwanted glare.

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Claims 1, 3-8, 11-12, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nijima (JP3-168630) in view of Takuma (U.S. Patent No. 5,615,045) and further in view of Miyata (U.S. Patent No. 5,745,288). Nijima teaches a screen for allowing light generated by a light source and modulated by a picture display device having pixels extending in a vertical and in a horizontal direction and laid out to form a matrix to produce an image thereon to be projected on said screen as an enlarged picture, said screen comprising: a Fresnel lens sheet 21 forming Fresnel lenses 21a at an emission side of said light; a first member 22 disposed for receiving light emitted from said Fresnel lens sheet, wherein a pitch of the pixels projected P1 and enlarged on said screen from said image produced by said picture display device is at least twice that of a pitch of said Fresnel lenses P2 formed on said Fresnel lens sheet ( $P1=2.9\text{mm}$ ,  $P2=0.112\text{mm}$ ,  $\therefore P1 \geq 2 \times P2$ ). In Nijima  $l_{ph}=l_{pv}$ . Nijima does not teach the lenticular lens has light absorbing parts or that the second member has diffusion particles. Takuma teaches in figure 9 that it was known to provide the first member, a lenticular sheet 23, with light absorbing areas 22 between the light windows, and light diffusing particles 21 in the second member 14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Takuma for the purpose of increased contrast. While it is notoriously well known in the art to adhere consecutive, "sandwiched" layers in a projection screen to each other, Nijima in view of Takuma does not explicitly state that the sheets are adhered nor does it teach an antireflection coating. Miyata-'288 teaches an adhesive 10 and that the protective hard coating 8 may be provided with an antireflective coating (col. 5, line 36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Miyata-'288 for the purpose of connecting

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adjacent sheets and reducing unwanted glare. The pitch of the light passing units = the pitch of the lenticular lenses.  $P3 (0.85\text{mm}) < P1 (2.9\text{mm})$ .

***Allowable Subject Matter***

Claims 17-21 are allowed.

Claims 9-10 and 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 1, 3-8, 11-12, and 15-16 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. For example, Ogino (U.S. Patent No. 5,611,611) teaches adhering "sandwiched" layers.

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on March 2, 2005 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

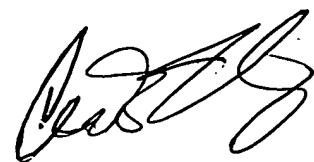
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A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Mahoney whose telephone number is (571) 272-2122. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**CHRISTOPHER MAHONEY  
PRIMARY EXAMINER**